ENVIRONMENTAL NEWS

Newsletter of the N.H. Department of Environmental Services

September / October 2002

Winchester Dam removed

Taking out small dam represents a big step in Ashuelot River restoration

A diminutive structure by human standards but an impassable obstacle to many fish, the Winchester Dam on the Ashuelot River was removed this summer. This is the second dam in as many years to be removed from the Ashuelot River. Last July, a downstream section of the Ashuelot was restored when the McGoldrick Dam in Hinsdale was removed.

Both dam removals are projects of the New Hampshire River Restoration Task Force, a collaborative public-private initiative with the goal of restoring rivers and eliminating safety hazards through selective dam removal. DES, which coordinates the work of the Task Force, is only the second state agency in the country to create such a program, which is funded by a grant from the U.S. Environmental Protection Agency.

"Rivers like the Ashuelot have worked hard for our benefit throughout New Hampshire's history," observed DES Acting Commissioner Dana Bisbee. "Now, we're

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Year of Clean Water

The 30th anniversary of the Clean Water Act

Did you know that this year marks the 30th anniversary of the enactment of the federal Clean Water Act? In recognition of this landmark piece of legislation, Congress has proclaimed this year as the national "Year of Clean Water." New Hampshire has kicked off its celebration with the signing of a 2002 Year of Clean Water proclamation by Governor Shaheen in conjunction with the promotion of statewide events.

In 1972, Congress passed the Clean Water Act in response to the public's overwhelming concern that the quality of our nation's waters was in serious jeopardy. All across the country, bodies of water were being subjected to sewage, oil spills, and excessive amounts of industrial and agricultural waste. One of the most famous examples of how severe pollution had become occurred in 1969 when the Cuyahoga River in Cleveland, Ohio burst into flames. Here in New Hampshire, the Connecticut River, New England's longest waterways, was suffering from sewage, erosion and industrial discharge. It was so bad that *The New*

Year of Clean Water *continued on page 6*

State launches Clean Cities Coalition to improve air quality

DES and the Governor's Office of Energy and Community Services recently launched the Granite State Clean Cities Coalition (GSCCC) to improve the state's air quality and reduce dependence on foreign oil.

The Coalition, which supports public-private partnerships that increase the use of alternative fuel vehicles and build supporting infrastructure, was designated by

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DAM

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returning the favor by restoring a significant stretch of this State-designated river to its natural state. By removing some dams that have simply outlived their usefulness, we're also eliminating public safety hazards as well." He said that DES's dam maintenance crew did the work of removing the dam.

The Winchester Dam removal restored approximately 15 miles of the Ashuelot River to free-flowing for the first time in about a century. This project is a significant part of a river-wide restoration plan to help bring back thousands of American shad, blueback herring, and Atlantic salmon to the Ashuelot River.

The Ashuelot is one of New Hampshire's major tributary streams to the Connecticut River and an historically significant river for migratory fish. Increasing fish movement throughout the river will allow them to reach important spawning and nursery sites, resulting in healthier fish populations and improved opportunities for anglers.

The three-foot high, 105-foot long timber crib dam was owned by the Town of Winchester. It deteriorated greatly since it was built around 1900. It no longer served a function and was considered to be a hazard to anglers and paddlers. The dam once provided water storage for the New England Box Company located in Winchester and for the Sheridan Woolen Mills in Ashuelot Village. As part of the dam removal project, two millstones were retrieved from the Ashuelot River for display at the Winchester Town Hall and the Winchester Historical Society.

Additional parts of the plan to restore the Ashuelot River include the removal of the Homestead Woolen Mill Dam in West Swanzey and the installation of upstream fish passages on three hydropower dams located in the lower section of the river.

The project is made possible through financial and technical assistance from a number of groups, including: USEPA, NOAA Fisheries Restoration Center, Connecticut River Watershed Council, American Sportfishing Association - FishAmerica Foundation, Wildlife Forever, National Fish and Wildlife Foundation, N.H. Fish and Game Department, N.H. Department of Environmental Services, and the U.S. Fish and Wildlife Service. The project has received valuable support from the Town of Winchester, Ashuelot River Local Advisory Committee, the N.H. Division of Historical Resources, and the U.S. Army Corps of Engineers.

Air quality seminars available for businesses

DES, the New Hampshire Small Business Development Center (SBDC), and the Business and Industry Association of New Hampshire (BIA) are co-sponsoring a free half-day seminar entitled "Air Resources Permitting and Compliance – What Every Business Should Know." The seminar is offered at three different dates and locations around the state, including: September 24 at the Continental 93 Travelers Inn in Littleton; October 1 at the DES Auditorium in Concord; and October 17 at the offices of Managed Ops in Bedford.

The seminar is offered to a wide variety of businesses, such as manufacturers, dry cleaners, gas tank truck/bulk terminals, food processors, auto body shops, laboratories, leather/metal/wood finishers, etc. Owners or managers of operations that utilize a boiler, an emergency generator, or that use paints, solvents, or chemicals in their processes should attend. Consultants, environmental managers, and attorneys are also encouraged to attend.

The seminars will help businesses assess their regulatory obligations relating to outdoor air emissions. Seminar speakers will include officials from the DES Air Resources Division and local business leaders who will be presenting their experiences with the air permitting and compliance process.

To register for this free workshop, call DES at (800) 498-6868, SBDC at (603) 897-8484, BIA at (800) 540-5388, or register on line before September 13 at www.des.state.nh.us/workshops/airquality.htm.

got old paint?

Go to: www.des.state.nh.us/hhw/hhwevent.htm for a household hazardous waste collection in your town this fall.

ENVIRONMENTAL NEWS

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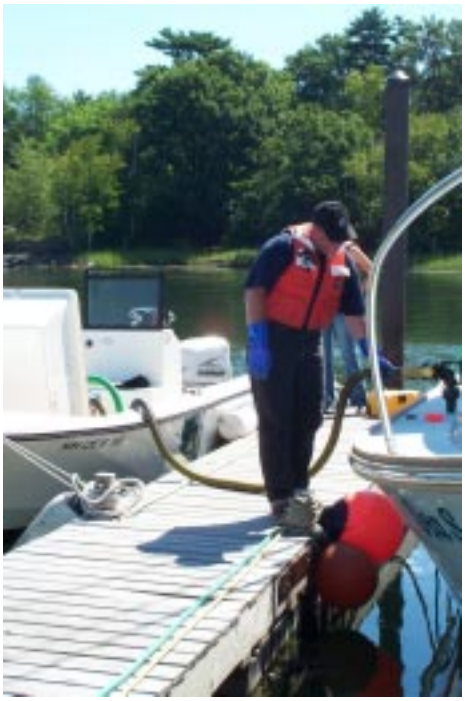
State provides new pumpout service on coast

Coastal beaches and shellfish to benefit

A new boat is making waves in the Seacoast region. DES purchased a mobile pumpout boat this summer, which travels to harbors and other areas where boats congregate, to offer sewage removal services. Operated by Portsmouth Harbor Towing, the boat is equipped with a 300-gallon holding tank used to store boat sewage.



Ken Anderson services a boat on the Piscataqua River.

"Because larger boats and yachts with deep drafts are not always able to utilize the dockside pumout facilities, DES implemented a plan to run a boat that would be able to service these larger vessels in the state's coastal waters," said Harry Stewart, Director of DES's Water Division. "The mobile pumpout boat can pull up next to any boat, hook up a hose to the waste system and pump the wastes from the customer's boat into the holding tank. Once filled, the mobile pumpout boat's holding tank will be emptied at a licensed on-shore wastewater treatment facility."

Stewart noted that funds to purchase the boat were provided by the U.S. Fish and Wildlife Service's Clean Vessel Act program (CVA). The CVA program receives money through the Sport Fish Restoration Account, which collects money through taxes placed on fishing tackle and motorboat fuels. The DES Clean Vessel Act program has also provided funding for four dockside pumpout facilities in the coastal region. The marinas that offer this service include George's Marina, Dover; Great Bay Marine, Newington; Hampton River Marina, Hampton; and Wentworth by the Sea Marina, New Castle.

"It is imperative that boat sewage is removed from our sensitive coastal waters," said Stewart. He explained that boat sewage (human waste) contains harmful bacteria and chemicals that can cause a variety of illnesses. "Shellfish, being filter feeders, can ingest these harmful bacteria. People who then eat the contaminated shellfish may be inflicted with illnesses such as cholera, typhoid and hepatitis. Also, boat sewage contains phosphorus and nitrogen, nutrients that are used by algae as fertilizers. If algae have an abundant supply of these nutrients they will grow out of control, cover the surface of the water and reduce the light that is available to underwater plants. Underwater plants, like grasses, are important habitat for fishes and other aquatic organisms."

According to Jody Connor, DES Limnology Center Director, "The pumpout boat program is a great addition to other programs offered by DES that reduce pollutants to our environment. This program will help improve the quality of waters at our coastal public beaches and help protect our important shellfish beds."

The boat is operated during the hours of 10 a.m. and 6 p.m. Friday through Sunday, June through October, and by appointment on weekdays.

A similar pumpout service is provided by DES on Lake Winnipesaukee.

Call (603) 436-0915 to schedule an appointment or to find out where the boat will be located on the weekend. There is a $10 charge per pumpout. For more information relating to the mobile pumpout boat program, call (603) 271-0698.

New Hampshire to expand coastal beach monitoring

DES receives $205,000 grant

On a "classic beach day" this summer, federal, state, and local officials gathered on Hampton Beach to announce the U.S. Environmental Protection Agency's new Clean New England Beaches Initiative. The initiative includes $1 million in federal funds for improved beach monitoring, an increased focus on pollution assessment work, and the designation of ten "flagship" beaches in New England that will serve as models for improving beach water quality. Hampton Beach was designated the flagship beach in New Hampshire.

"New Hampshire's public beaches are some the state's most valued natural resources," said Paul Currier, administrator of DES's Watershed Protection Bureau. "We are very pleased to be receiving this significant financial grant from EPA, as it will help to expand a beach monitoring program that we have been conducting for a number of years. Among other things, the federal funding will allow us to increase the number of coastal beaches monitored from nine to thirteen, as well as enhance our public educational capabilities, further protecting the health of our state's beach visitors."

Hampton Beach was designated New Hampshire's flagship beach under EPA's new beach grant initiative. Photo from USEPA.

"The Clean New England Beaches Initiative will help improve these beaches," said Robert Varney, EPA Regional Administrator, "making them safer, cleaner, and more enjoyable for millions of New England swimmers." In announcing the campaign, Varney awarded a $205,000 EPA grant to DES to help improve its beach monitoring and assessment program. The grant is among more than $1 million being awarded this year to New England's five coastal states for their beach monitoring programs. The funding was made possible by the Federal Beach Act approved by Congress in 2000.

Changes in septage regulations improve management options

by Pat Hannon, DES Septage Coordinator

Most people would agree that septage is hardly a topic for polite conversation, no less public discussion. So, within many municipalities the issues relative to septage disposal are often left unspoken. One could say it's a "flush and forget" mentality. Septage is the term used to describe material removed from septic tanks, cesspools, holding tanks, portable toilets or other sewage treatment storage units. Last year, more than 85 million gallons of septage were generated (pumped out by septage haulers) from New Hampshire communities alone.

Improper management and disposal of septage can pose serious health hazards, as well as degrade the state's water resources. There are a number of management choices for proper septage disposal. The most commonly used disposal option is at publicly owned wastewater treatment plants, which account for approximately half of the in-state disposal. Other viable options include private or municipally owned lagoons or land application sites. In addition, New Hampshire has two "alternative treatment" technology facilities that utilize plants and man-made wetlands to process and treat septage prior to discharging effluent.

For several years, there has been growing concern that New Hampshire's septage disposal capacity at existing facilities falls far short of the volumes generated. Approximately 25 percent of the septage from New Hampshire's septic systems is currently being disposed out of state.

To address these many issues, the Septage Task Force was formed in 1999. One of their recent recommendtions helped to create the position of "Septage Coordinator" at DES, to provide outreach to municipalities regarding the disposal capacity problem and offer information on potential solutions.

House Bill 207 was passed (effective date July 1, 2003) as a result of the Legislature becoming more keenly aware of the need to provide financial incentive for municipalities to move forward in meeting their septage disposal obligation. Under the bill's provisions, municipalities may be reimbursed by the state, in addition to other state contributions, an additional 10 percent of the eligible costs resulting from the acquisition and construction of septage treatment facilities to meet the septage disposal needs for that municipality.

For more information on HB 207 or for assistance with septage disposal issues in your community, please contact Pat Hannon at (603) 271-2758.

State & UNH researchers looking to increase monitoring wells in the Seacoast

DES's New Hampshire Geological Survey (NHGS) this summer began collaborating with researchers from the University of New Hampshire's Earth Sciences Department (UNH) to locate water wells that might be suitable for long-term monitoring of groundwater levels in the seacoast region of the state.

"This effort represents the first phase of data collection in support of a proposed three-year study of regional groundwater use and water availability," said State Geologist David Wunsch, who noted that the study is to be conducted jointly by DES, the N.H. Office of State Planning, and the U.S. Geological Survey (USGS).

"Groundwater levels in selected monitoring wells are currently measured every month on a year-round basis by staff from the NHGS and a small number of volunteers," explained Wunsch. "These wells comprise a statewide network that has slowly grown and evolved over time since it was first established by the USGS in 1947." He said that for many years the network consisted of only 12 wells, and then in 1994 the number of monitoring wells doubled when DES assumed primary responsibility for data collection. "However, the seacoast region is still under-represented by the current monitoring network. For this reason, we have teamed up with UNH to locate existing monitoring wells that were components of previous studies in the region. Cooperation from the property owners where the wells are located could provide us with additional monitoring sites."

Groundwater monitoring wells provide valuable data. Each serves as an indicator of regional hydrologic conditions, registering changes in the amount of water stored in underground reservoirs, known as aquifers. This information can be used to compare conditions today with those existing in the past, and to predict future conditions. All this information is very useful for ensuring wise water resource management decisions. By using this data, for example, the severity of droughts can be assessed. Indeed, the record of water level measurements over time not only reveals general hydrologic trends, but it also provides detailed information about how aquifers with different characteristics respond to hydrologic events of various magnitudes and durations. Such information provides professional hydrogeologists and water managers with a better understanding of the role that groundwater plays in the hydrologic system.

Wunsch noted that work on locating additional monitoring wells in the Seacoast has now begun in the Lamprey River watershed. This will also be the site for a thesis research project being conducted by the UNH researchers.

"With the help and permission of landowners, we hope to significantly expand the well network and begin collecting additional data needed for a better understanding of the region's increasingly-precious water resources," commented the State Geologist. Wunsch noted that the scientists participating in this seacoast project will be able to identify themselves to residents upon request. "We look forward to working with those well owners who voluntarily choose to be a part of this important data collection project."

For more information on this project, please contact Rick Chormann at (603) 271-1976, or David Wunsch, State Geologist, at (603) 271-6482.

DES reduces electricity use & saves money

As part of Earth Day celebrations in April 2001, the DES Green Team launched an Energy Efficiency and Conservation Initiative at the DES headquarters on Hazen Drive. The initiative has been going strong ever since. DES employees are encouraged to implement simple, cost-saving measures at work such as turning off computers and monitors when not in use, maximizing power saving modes to allow monitors to "go to sleep," turning off copiers and printers at the end of each work day, and turning off lights whenever possible. To complement and enhance these energy saving employee actions, the lighting infrastructure in the DES building was recently renovated with energy efficient light fixtures and bulbs.

The Green Team is happy to report that the DES energy saving initiative is already paying off in electricity savings. According to the Governor's Office of Energy and Community Services, from June 2001 to November 30, 2001, the building saved 278,768 kwh of electricity, which translates to a savings of $16,375!

DES continues to promote energy saving actions. For information on DES's energy initiative and how it got started, please contact Kathy Brockett of the Green Team at (603) 271-6284.

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the U.S. Department of Energy at a special ceremony held in Durham. The ceremony marked the culmination of two years of coalition building, and makes New Hampshire a part of a national network of Clean Cities coalitions.

"For the future of our state's environment and economy, we must reduce our dependence on foreign oil and look toward new technologies and new solutions to meet our energy needs," said Governor Jeanne Shaheen. "With the Granite State Clean Cities Coalition, we are taking an important step toward encouraging cleaner, more energy efficient transportation in New Hampshire," she added. "This effort will help give consumers and businesses more options for environmentally friendly transportation and assist our efforts to become more energy independent."

The Coalition grew out of the State's initiative known as the Alternative Fuel Vehicle Project, which added alternative fuel vehicles to the State's vehicle fleet. GSCCC expands this statewide initiative to include the private sector, and is now a consortium of 40 agencies, businesses, municipalities, and organizations that have come together over the past two years. GSCCC stakeholders have committed to help expand the use of alternative fuels, including natural gas, electricity, hydrogen, biodiesel, and propane, in lieu of gasoline and diesel, in motor vehicles in New Hampshire.

"The transportation sector accounts for 27 percent of the total energy use in the United States, and 67 percent of our total petroleum use," said May Ann Manoogian, Director of the Governor's Office of Energy and Community Services. "By encouraging the use of alternative fuels, the Clean Cities Program helps enhance energy security at both the national and local levels."

"In New Hampshire and the Northeast, mobile sources account for more than half of the smog and ozone-forming air pollutants in the air we breathe," said Dana Bisbee, DES Acting Commissioner, in support of the initiative. "These pollutants have an adverse effect on the health of New Hampshire residents and our special natural environment. The use of alternative fuels in motor vehicles is one way we can help reduce those effects."

All Coalition stakeholders are now eligible to compete for grant money for additional alternative fuel projects under the Clean Cities portion of the state's annual federal energy program grant.

Year of Clean Water

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York Times called the Connecticut River "America's best landscaped sewer."

Remarkably, the Clean Water Act, through fostering dramatic water quality improvements nationwide, has served to literally transform America's landscape—from the Androscoggin River in New England to the Columbia River in the Pacific Northwest, and virtually all other major waterways in between. Indeed, this statute has probably done more to improve America's waterways than any other act. Its preamble states that America's surface waters shall no longer be used as conduits for waste disposal. Also, the act created federal permitting requirements for industrial and municipal wastewater discharges. And it provided substantial grant monies for the construction and expansion of wastewater treatment facilities nationwide. In New Hampshire alone, over $1 billion in federal, state, and local dollars has been spent to construct and expand over 80 wastewater treatment facilities throughout the state, including the regional Winnipesaukee River Basin Project.

Other remarkable results include the fact that the Connecticut River is now a designated river in the N.H. Rivers Management and Protection Program and part of the American Heritage Rivers Program and is cited as a nationally recognized trout fishing river. Soil erosion from cropland has been reduced by more than one-third since 1982, saving over a billion tons of soil each year and reducing sediments, nutrients, and other pollutants that reach streams, lakes, and rivers. Compliance with national standards for discharges from industrial facilities result in the removal of billions of pounds of pollutants from wastewater each year.

There is still a great deal of work to be done. In order to keep improving the quality of our waters, let's gather together as a state and a nation to promote public awareness by participating in and supporting water related events. From joining or assisting a local water related organization in their water quality monitoring efforts or education campaign, to learning about what you can do in your backyard to improve water quality, there are endless opportunities to help protect the quality of New Hampshire waters.

For a more comprehensive list of New Hampshire water related events and more information about the Year of Clean Water and the Clean Water Act, visit the New Hampshire Year of Clean Water website at www.des.state.nh.us/CleanWater.

Stewart reappointed as Water Division director

Adams chosen to lead Wetlands Program

Two senior-level positions were recently addressed at DES—one appointment, and the other a reappointment.

Harry Stewart was recently reappointed by the Governor and Executive Council for another four-year term as DES's Water Division Director. Harry, who has led the Water Division since 1998, has extensive experience in both the private and public sectors. Prior to serving in the directorship role, he served as assistant chief of DES's Water Supply Engineering Bureau and later as the Administrator of DES's former Groundwater Protection Bureau. Before coming to DES,

Harry Stewart, Director

Collis Adams, Adminsitrator

Harry worked with EPA, and he served as a project manager and senior engineer for environmental consulting firms.

Collis Adams was selected as the new Administrator of DES's Wetlands Bureau. Collis is highly qualified for this role, with over twenty years of diverse experience on a wide range of projects involving site development and wetlands impacts and mitigation. At DES, he has worked successfully in the Site Specific Program, Subsurface Bureau, and Wetlands Bureau, and he served for several years on the N.H. Wetlands Board (now Council). Prior to DES, Collis worked as an engineering consultant and for the U.S. Army Corps of Engineers. Collis is a New Hampshire Certified Wetlands Scientist.

DES is very fortunate to have these two highly qualified people in such pivotal positions.

Ohler & Donovan honored with DES Quarterly Rewards

Becky Ohler, of Air Resources' Technical Services Bureau, and Joe Donovan, of Waste Management's Hazardous Waste Remediation Bureau, were named recipients of the most recent Rewards & Recognition Quarterly Awards at the DES "town meeting" held earlier this summer.

Becky's nomination came as a result of her successes in a number of alternative fuel vehicle initiatives. First, she was instrumental in UNH and a Seacoast bus service receiving a $1 million grant, which was subsequently used to construct a natural gas refueling / maintenance facility and purchase natural gas buses. Second, she has been the driving force in establishing the U.S. Department of Energy's Clean Cities program in New Hampshire. Known as the Granite State Clean Cities Coalition, the program is a voluntary government / industry partnership dedicated to expanding the use of alternative fuel vehicles in New Hampshire. And, not surprisingly, Becky has also served as the DES lead on the purchase of alternative fuel vehicles and hybrid vehicles for the department's fleet. Her passion for the subject matter, consistently strong work ethic, and willingness to be an active participant in workgroups and regional planning meetings are exemplary.

Becky Ohler, Quarterly Award recipient, stands by of one of DES's natural gas cars.

Joe was nominated for the Quarterly Reward for his willingness and initiative in the investigating a contaminated site on the Nashua River. Joe readily offered his underwater diving expertise in the exploration and identification of coal tar seeps in the river, and advised utility personnel of a broken encasement over a gas line in the river sediments. Although others advised against exploring the river bottom, Joe convincingly presented his rationale and underwater methods, which proved to be a successful and cost effective solution. Joe has also utilized his diving skills a number of other times for DES, both inside and outside his own bureau.

Joe Donovan (right) is congratulated by Waste Management Division Director Phil O'Brien on his Quarterly Reward.

Congratulations, Becky and Joe!

Cross border exercise simulates terrorist incident

About 300 emergency workers participated in a training exercise on May 30th involving mock terrorist incidents in New Hampshire and Massachusetts. The cross border exercise tested the capabilities of over a dozen federal, state, and local agencies and emergency response groups, including DES and the N.H. Office of Emergency Management, now part of the N.H. Department of Safety, and the Nashua Fire and Police Departments.

The New Hampshire portion of the incident involved a hypothetical bomb going off at a fictitious chemical company (actually the Nashua wastewater treatment plant), with the (simulated) release of fuel oil into the nearby Merrimack River. The Massachusetts incident occurred at a plastics factory in Lowell.

While the exercise demonstrated a well coordinated emergency response, it also succeeded in identifying areas needing improvement, which are now being addressed by the agencies involved.

DES emergency responders Rick Berry (in foreground) and George Carrigan (at left) confer during the exercise.

Nashua officials review site plans to help determine the best means for handling the situation.

(At right) Dozens of students from Nashua High School and St. Joseph Hospital School of Nursing played the role of victims. Responders set up decontamination and triage operations and transported the "injured" students to area hospitals.

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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